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PASSWORD:

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NEWS
         AUG 06
                 CAS REGISTRY enhanced with new experimental property tags
NEWS
                 FSTA enhanced with new thesaurus edition
NEWS
      3
         AUG 06
                 CA/CAplus enhanced with additional kind codes for granted
NEWS
         AUG 13
                 patents
                 CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS
     5 -
         AUG 20
                 Full-text patent databases enhanced with predefined
NEWS
      6
         AUG 27
                 patent family display formats from INPADOCDB
NEWS
      7
         AUG 27
                 USPATOLD now available on STN
NEWS
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         AUG 28
                 CAS REGISTRY enhanced with additional experimental
                 spectral property data
                 STN AnaVist, Version 2.0, now available with Derwent
NEWS
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         SEP 07
                 World Patents Index
         SEP 13
                 FORIS renamed to SOFIS
NEWS 10
NEWS 11
         SEP 13
                 INPADOCDB enhanced with monthly SDI frequency
NEWS 12
                 CA/CAplus enhanced with printed CA page images from
         SEP 17
                 1967-1998
                 CAplus coverage extended to include traditional medicine
NEWS 13
         SEP 17
                 patents
                 EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 14
         SEP 24
                 CA/CAplus enhanced with pre-1907 records from Chemisches
NEWS 15
         OCT 02
                 Zentralblatt
NEWS 16 OCT 19
                 BEILSTEIN updated with new compounds
                 Derwent Indian patent publication number format enhanced
NEWS 17 NOV 15
                 WPIX enhanced with XML display format
NEWS 18 NOV 19
NEWS 19 NOV 30
                 ICSD reloaded with enhancements
                 LINPADOCDB now available on STN
NEWS 20 DEC 04
NEWS 21 DEC 14
                 BEILSTEIN pricing structure to change
NEWS 22 DEC 17
                 USPATOLD added to additional database clusters
NEWS 23
        DEC 17
                 IMSDRUGCONF removed from database clusters and STN
                 DGENE now includes more than 10 million sequences
NEWS 24
         DEC 17
                 TOXCENTER enhanced with 2008 MeSH vocabulary in
NEWS 25
         DEC 17
                 MEDLINE segment
                 MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
NEWS 26
         DEC 17
NEWS 27
         DEC 17
                 CA/CAplus enhanced with new custom IPC display formats
NEWS 28
         DEC 17
                 STN Viewer enhanced with full-text patent content
                 from USPATOLD
NEWS 29
         JAN 02
                 STN pricing information for 2008 now available
              19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2,
NEWS EXPRESS
              CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.
              STN Operating Hours Plus Help Desk Availability
NEWS HOURS
NEWS LOGIN
              Welcome Banner and News Items
              For general information regarding STN implementation of IPC 8
NEWS IPC8
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SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

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STRUCTURE FILE UPDATES: 8 JAN 2008 HIGHEST RN 960198-43-0 DICTIONARY FILE UPDATES: 8 JAN 2008 HIGHEST RN 960198-43-0

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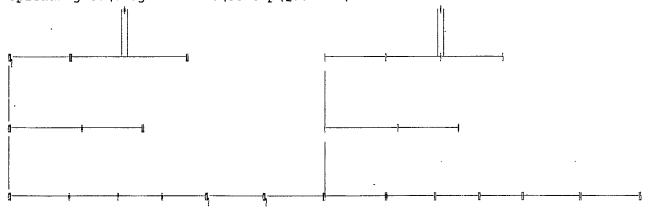
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=>
Uploading C:\Program Files\Stnexp\Queries\10781894.str



chain nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 chain bonds:

1-2 1-6 2-3 3-4 3-5 6-7 6-9 7-8 9-10 10-11 11-12 12-13 13-14 14-15 exact/norm bonds:

2-3 3-4 3-5 6-7 7-8 9-10 10-11 11-12 exact bonds :

1-2 1-6 6-9 12-13 13-14 14-15

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

Structure attributes must be viewed using STN Express query preparation.

=> s l1 full

FULL SEARCH INITIATED 14:41:12 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 4703 TO ITERATE

100.0% PROCESSED 4703 ITERATIONS

70 ANSWERS

SEARCH TIME: 00.00.01

L2 70 SEA SSS FUL L1

=> file medline caplus wpids uspatfull

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 178.36 178.57

FULL ESTIMATED COST

FILE 'MEDLINE' ENTERED AT 14:41:28 ON 09 JAN 2008

FILE 'CAPLUS' ENTERED AT 14:41:28 ON 09 JAN 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIDS' ENTERED AT 14:41:28 ON 09 JAN 2008 COPYRIGHT (C) 2008 THE THOMSON CORPORATION

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FILE 'USPATFULL' ENTERED AT 14:41:28 ON 09 JAN 2008 CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)
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=> s 12

SAMPLE SEARCH INITIATED 14:41:35 FILE 'WPIDS'

SAMPLE SCREEN SEARCH COMPLETED - 13 TO ITERATE

100.0% PROCESSED 13 ITERATIONS 1 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 22 TO 238 PROJECTED ANSWERS: 1 TO 40

L3 48 L2

=> s 13 and virus

L4 22 L3 AND VIRUS

=> s 14 and RSV

L5 2 L4 AND RSV

=> d 15 1-2 ibib, abs, hitstr

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:902611 CAPLUS

DOCUMENT NUMBER: 143:241938

TITLE: Methods and compositions for the treatment of

respiratory syncytial virus

INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.; Ishaq,

Khalid S.; Fleming, Ronald A.; Hess, Jan V.; Huang,

Yunsheng; Read, Russ H.; Furman, Phillip A.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 29 pp.

CODEN: USXXCO

RSV by administering to the host an anti-RSV effective

amount of a compound of the invention. 443882-90-4, KPC 11 443882-91-5, KPC 15

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.							APPLICATION NO.					DATE						
	US	2005	1871	91		A1		2005	0825	•	US 2004-781894					2	0040	220	
	WO	2005	0997	19		A2		2005	1027	1	WO 2005-US3972					20050209			
	WO	2005	0997	19		A3	A3 20070322												
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
			CN,	co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
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		APP									US 2	004-	7818	94		A 20	0040	220	
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AB		e inv																	
	replication and treating a host infected with RSV. The																		
									treating a host infected						with	h			

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compns. for treatment of respiratory syncytial virus)

RN 443882-90-4 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 443882-91-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,Ntrimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

IT 207298-91-7 207298-93-9 252371-27-0

443882-96-0

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses) (compns. for treatment of respiratory syncytial virus)

RN 207298-91-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 207298-93-9 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 252371-27-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 443882-96-0 CAPLUS

3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-butoxy-4-hydroxy-N,N,N-CN trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

ANSWER 2 OF 2 USPATFULL on STN

ACCESSION NUMBER:

2005:215515 USPATFULL

TITLE:

Methods and compositions for the treatment of

respiratory syncytial virus

INVENTOR(S):

Kucera, Louis S., Pfafftown, NC, UNITED STATES Morris-Natschke, Susan L., Apex, NC, UNITED STATES Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES Fleming, Ronald A., Cary, NC, UNITED STATES Hess, Jan V., Hurdle Mills, NC, UNITED STATES

Huang, Yunsheng, Apex, NC, UNITED STATES Read, Russ H., Rural Hall, NC, UNITED STATES Furman, Phillip A., Durham, NC, UNITED STATES

	NUMBER	KIND	DATE
US	2005187191	A1	20050825
US	2004-781894	A1	20040220

PATENT INFORMATION: APPLICATION INFO.:

Utility

DOCUMENT TYPE:

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE:

MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE

(10)

NW, WASHINGTON, DC, 20004, US

NUMBER OF CLAIMS: 39

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS:

1 Drawing Page(s)

LINE COUNT:

2105

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention includes compounds useful for inhibiting RSV ΆB replication and treating a host infected with RSV. The invention also includes methods of treating a host infected with RSV by administering to the host an anti-RSV effective amount of a compound of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 443882-90-4, KPC 11 443882-91-5, KPC 15

(compns. for treatment of respiratory syncytial virus)

RN 443882-90-4 USPATFULL

3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-CN trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 443882-91-5 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

IT 207298-91-7 207298-93-9 252371-27-0

443882-96-0

(compns. for treatment of respiratory syncytial virus)

RN 207298-91-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 207298-93-9 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me} \\ | \\ \text{-O} \quad \text{(CH$_2$)} \quad \text{7-O} \quad \text{O} \\ | \quad | \quad | \quad | \\ | \\ \text{Me}_3 + \text{N-CH$_2$- CH$_2$- O- P-O- CH$_2$- CH- CH$_2$- NH- C- (CH$_2$)} \quad \text{10-Me} \\ | | \quad | \quad | \\ \text{O} \end{array}$$

RN 252371-27-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

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(FILE 'HOME' ENTERED AT 14:40:35 ON 09 JAN 2008)

FILE 'REGISTRY' ENTERED AT 14:40:51 ON 09 JAN 2008

L1 STRUCTURE UPLOADED

L2 70 S L1 FULL

FILE 'MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 14:41:28 ON 09 JAN 2008

L3 48 S L2

L4 22 S L3 AND VIRUS L5 2 S L4 AND RSV

=> d 14 1-22 ibib, abs, hitstr

L4 ANSWER 1 OF 22 MEDLINE ON STN ACCESSION NUMBER: 91202492 MEDLINE DOCUMENT NUMBER: PubMed ID: 2016713

DOCUMENT NUMBER:

In vitro evaluation of phosphocholine and quaternary

ammonium containing lipids as novel anti-HIV agents.

AUTHOR: Meyer K L; Marasco C J Jr; Morris-Natschke S L; Ishaq K S;

Piantadosi C

CORPORATE SOURCE: University of North Carolina, School of Pharmacy, Division

of Medicinal Chemistry and Natural Products, Chapel Hill

27599.

CONTRACT NUMBER: CA 12197 (NCI)

CA 42216 (NCI) RR 05404 (NCRR)

SOURCE: Journal of medicinal chemistry, (1991 Apr) Vol. 34, No. 4,

pp. 1377-83.

Journal code: 9716531. ISSN: 0022-2623.

PUB. COUNTRY: United States

DOCUMENT TYPE: (COMPARATIVE STUDY)

Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

LANGUAGE: English

FILE SEGMENT: Priority Journals; AIDS

ENTRY MONTH: 199105

ENTRY DATE: Entered STN: 7 Jun 1991

Last Updated on STN: 3 Feb 1997 Entered Medline: 21 May 1991

AB A series of synthetic lipids containing a two- or three-carbon backbone substituted with a thio, oxy, or amidoalkyl functionality and either a phosphocholine or quaternary ammonium moiety was evaluated as potential anti-HIV-1 agents. Several analogues were identified as possessing activity with the most promising compound being rac-3-octadecanamido-2-ethoxypropylphosphocholine (8). Compound 8 exhibited an IC50 for the inhibition of plaque formation of 0.16 microM which was 84-fold lower than the IC50 value determined for CEM-SS cell growth inhibition. Initial

mechanistic studies have indicated that these compounds, unlike AZT, are not reverse transcriptase (RT) inhibitors, but instead appear to inhibit a late step in HIV replication involving virus assembly and infectious virus production. Since these lipids are acting via a different mechanism, they represent an alternative approach to the chemotherapeutic treatment of AIDS as well as candidates for combination therapy with AZT.

L4 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:904330 CAPLUS

DOCUMENT NUMBER: 143:222464

TITLE: Phospholipids for the treatment of infection by

togaviruses, herpes viruses and coronaviruses

INVENTOR(S): Fleming, Ronald A.; Hes, Jan V.; Huang, Yunsheng;

Read, Russ H.; Morris-Natschke, Susan L.; Ishaq, Khalid S.; Kucera, Louis S.; Furman, Phillip A.

PATENT ASSIGNEE(S): Kucera Pharmaceutical Company, USA

SOURCE: U.S. Pat. Appl. Publ., 36 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
						
US 2005187192	A1	20050825	US 2004-783927	20040220		
PRIORITY APPLN. INFO.:			US 2004-783927	20040220		

OTHER SOURCE(S): MARPAT 143:222464

AB Provided are compds., methods and pharmaceutical compns. for treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid compound is, e.g., a 3-alkylamido-2-alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other antiviral agents. The EC50 of an alkylamido-2-alkoxypropylphosphocholine against varicella zoster virus was 0.48 μg/mL.

IT 252371-27-0 443882-90-4 443882-91-5

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(phospholipids for treatment of infection by togaviruses, herpes viruses and coronaviruses)

RN 252371-27-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 443882-90-4 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 443882-91-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

L4 ANSWER 3 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:902611 CAPLUS

DOCUMENT NUMBER: 143:241938

TITLE: Methods and compositions for the treatment of

respiratory syncytial virus

INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.; Ishaq,

Khalid S.; Fleming, Ronald A.; Hess, Jan V.; Huang,

Yunsheng; Read, Russ H.; Furman, Phillip A.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 29 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATE	ENT I	NO.			KIN	o :	DATE			APPL	ICAT	ION I	NO.		D	ATE		
						-									-			
US 2	2005	1871	91		A1	A1 20050825			US 2004-781894						20040220			
WO 2	2005	0997	19		A2		2005	1027	1	WO 2	005-1	US39	72		2	0050	209	
WO 2	2005	0997	19		A3		2007	0322										
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		CN,	co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	ΚZ,	LC,	
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	
		SY,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	ΥU,	ZA,	ZM,	zw
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	
		AZ,	BY,	KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	IS,	IT,	LT,	LU,	MC,	NL,	PL,	PT,	
		RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	
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PRIORITY APPLN. INFO.:

US 2004-781894 A 20040220

OTHER SOURCE(S): MARPAT 143:241938

AB The invention includes compds. useful for inhibiting RSV replication and treating a host infected with RSV. The invention also includes methods of treating a host infected with RSV by administering to the host an anti-RSV effective amount of a compound of the invention.

IT 443882-90-4, KPC 11 443882-91-5, KPC 15

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compns. for treatment of respiratory syncytial virus)

RN 443882-90-4 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-ethoxy-4-hydroxy-N,N,Ntrimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 443882-91-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

IT 207298-91-7 207298-93-9 252371-27-0

443882-96-0

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(compns. for treatment of respiratory syncytial virus)

RN 207298-91-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 207298-93-9 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me} \\ | \\ \text{-O } (\text{CH}_2)_{\, 7} - \text{O} \\ | \\ \text{Me}_3 + \text{N} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{P-O-CH}_2 - \text{CH-CH}_2 - \text{NH-C-} (\text{CH}_2)_{\, 10} - \text{Me} \\ | \\ \text{O} \end{array}$$

RN 252371-27-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 443882-96-0 CAPLUS

3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-butoxy-4-hydroxy-N,N,N-CN trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

ANSWER 4 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:435743 CAPLUS

DOCUMENT NUMBER:

129:90448

TITLE:

Method of treating hepatitis virus

infections

INVENTOR(S):

Kucera, Louis S.; Morris-Natschke, Susan L.

PATENT ASSIGNEE(S):

Wake Forest University, USA; University of North

Carolina

SOURCE:

U.S., 17 pp., Cont.-in-part of U.S. Ser. No. 74,943,

abandoned. CODEN: USXXAM

Patent

DOCUMENT TYPE:

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	,			
US 5770584	A	19980623	US 1995-465947	19950606
US 6030960	A	20000229	US 1998-102308	19980622
PRIORITY APPLN. INFO	.:		US 1993-74943	B2 19930610
			US 1995-465947	A3 19950606

OTHER SOURCE(S): MARPAT 129:90448

A method of treating hepatitis virus infection is disclosed. The method involves administering to a human subject in need of such treatment an effective hepatitis virus-combating amount of an alkyl lipid or alkyl lipid derivative

112989-01-2P 112989-02-3P 209532-02-5P IT

209532-03-6P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(alkyl lipids for treating hepatitis virus infections)

RN 112989-01-2 CAPLUS

3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-CN trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 209532-02-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,Ntrimethyl-10-oxo-, inner salt, 4-oxide, (+)- (9CI) (CA INDEX NAME)

Rotation (+).

RN 209532-03-6 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)- (9CI) (CA INDEX NAME)

Rotation (+).

REFERENCE COUNT:

67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:

1998:205430 CAPLUS

DOCUMENT NUMBER:

128:316940

TITLE:

In vitro evaluation and characterization of newly designed alkylamidophospholipid analogs as anti-human

immunodeficiency virus type 1 agents

AUTHOR (S):

Kucera, L. S.; Iyer, N.; Morris-Natschke, S. L.; Chen,

S. Y.; Gumus, F.; Ishaq, K.; Herrmann, D. B. J.

CORPORATE SOURCE:

Wake Forest University School Medicine, Winston-Salem,

NC, USA

· SOURCE:

Antiviral Chemistry & Chemotherapy (1998), 9(2),

157-165

CODEN: ACCHEH; ISSN: 0956-3202

PUBLISHER: International Medical Press

DOCUMENT TYPE: Journal LANGUAGE: English

Our labs. first reported two novel classes of complex synthetic lipids, including alkylamidophosphocholines (PC lipid; CP-51) and alkylamidophosphate ester-linked lipid-AZT conjugates (lipid-AZT conjugates; CP-92), with selective and potent activity against human immunodeficiency virus type 1 (HIV-1). To extend these observations, we synthesized addnl. PC lipids and lipid-AZT conjugates (INK and INK-AZT conjugate) to evaluate their structure-activity relationships by testing for selectivity against infectious wild-type (wt) and drug-resistant HIV-1 replication, virus fusogenic activity and toxicity replication, virus fusogenic activity and toxicity for mouse bone marrow cells. PC lipid compds. with medium chain lengths at positions 1 and 2 gave an improved selective index (SI). INK-3, with 12 and 8 carbons and INK-15, with 10 and 12 carbons were among the most selective when evaluated in CEM-SS cells. INK-14, a lipid-AZT conjugate where AZT replaced the choline in PC lipid INK-3, gave the highest SI of >1250 against both infectious wt HIV-1 replication in CEM-SS cells and a clin. isolate in peripheral blood leukocytes. Notably, the PC lipid compds. INK-3 and INK-15, but not the lipid-AZT conjugate INK-14, were potent inhibitors of matched pairs of AZT-sensitive and AZT-resistant HIV-1 clin. isolates. INK-3 also inhibited replication of HIV-2 and TIBO-resistant HIV-1, and inhibited HIV-1-mediated fusogenic activity by 78, 41 and 9% in a dose-dependent manner. The TC50 for mouse bone marrow cells was >100 $\mu g/mL$ for CP-51 and 0.142-0.259 $\mu g/mL$ for AZT. These data suggest that optimum PC lipid compds. are significantly less toxic than AZT and have high potential as novel therapeutic agents for AIDS.

IT 207298-91-7P 207298-92-8P 207298-93-9P 207298-94-0P 207298-95-1P 207298-97-3P 207298-99-5P

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(anti-HIV-1 activity and preparation of alkylamidophospholipid analogs) 207298-91-7 CAPLUS

3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 207298-92-8 CAPLUS

RN

CN

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

$$\begin{array}{c} & \text{Me} \\ | \\ -\text{O} & (\text{CH}_2)_9 - \text{O} & \text{O} \\ | & | & | \\ | & \text{Me}_3 + \text{N} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{P} - \text{O} - \text{CH}_2 - \text{CH} - \text{CH}_2 - \text{NH} - \text{C} - (\text{CH}_2)_{10} - \text{Me} \\ | | & \text{O} \end{array}$$

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

$$\begin{array}{c} & \text{Me} \\ | \\ -\text{O} & (\text{CH}_2)_{\, 7} - \text{O} & \text{O} \\ | & | & | \\ | & | \\ \text{Me}_3 + \text{N} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{P} - \text{O} - \text{CH}_2 - \text{CH} - \text{CH}_2 - \text{NH} - \text{C} - (\text{CH}_2)_{\, 10} - \text{Me} \\ | | & \text{O} \end{array}$$

RN 207298-94-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-(hexyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 207298-95-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

$$\begin{array}{c} & \text{Me} \\ | \\ -\text{O} & (\text{CH}_2)_{\, 7} - \text{O} & \text{O} \\ | & | & | \\ | & | \\ \text{Me}_3 + \text{N} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{P} - \text{O} - \text{CH}_2 - \text{CH} - \text{CH}_2 - \text{NH} - \text{C} - (\text{CH}_2)_{\, 16} - \text{Me} \\ | | & \text{O} \end{array}$$

RN 207298-97-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 207298-99-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

IT 112989-02-3, CP 51

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(anti-HIV-1 activity and preparation of alkylamidophospholipid analogs)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

REFERENCE COUNT:

19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 19

1996:388263 CAPLUS

DOCUMENT NUMBER:

125:49273

TITLE:

Lipid analogs for treating viral infections

INVENTOR(S):

Kucera, Louis S.; Morris-Natschke, Susan L.; Ishaq,

Khalid S.

PATENT ASSIGNEE(S):

Wake Forest University, USA; Univ. of North Carolina

at Chapel Hill

SOURCE:

PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

1

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.					APPLICATION NO.												
						-											
WO	9606	620			A2		1996	0307	1	WO 19	995-1	JS10:	111		1	9950	307
WO	9606	620			A3		1996	0613									
	W:	AM,	AT,	ΑU,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CZ,	DE,	DK,	EE,	ES,	FI,
		GB,	GE,	HU,	IS,	JP,	KΕ,	KG,	KP,	KR,	ΚZ,	LK,	LR,	LT,	LU,	LV,	MD,
		MG,	MN,	MW,	MX,	NO,	NZ,	ΡL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	ТJ,
		TM,	TT									•					
	RW:	ΚE,	MW,	SD,	SZ,	UG,	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙE,	IT,
		LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	ML,	MR,	NE,
		SN,	TD,	TG													
CA	2197	319			A1		1996	0307		CA 19	995-2	2197	319		1	9950	807
ΑU	9532	166			Α		1996	0322		AU 19	995-3	3216	5		1	9950	807
ΕP	7811	38			A2		1997	0702		EP 19	995-	9283	55		1:	9950	807
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙE,	ΙT,	LI,	LU,	NL,	PT,	SE
JP	1050	6619			Т		1998	0630	,	JP 19	995-	5087	73		1	9950	807
ΕP	1852	121			A2		2007	1107	:	EP 20	007-	1636	9		1:	9950	807
ΕP	1852	121		•	A 3		2007	1121									
	R:	AT.	BE.	CH.	DE.	DK	ES.	FR.	GB.	GR.	IE.	IT.	LI.	LIJ.	NL.	PT.	SE

US 5962437	A	19991005	US	1997-793470		19970502
US 7129227	B1	20061031	US	1999-412539		19991004
US 20042598	45 A1	20041223	US	2004-889127		20040713
US 7135584	B2	20061114				
US 20050800	50 A1	20050414	US	2004-943923		20040920
US 7141557	B2	20061128				
JP 20070560	33 A	20070308	JP	2006-278049		20061011
US 20070998	70 A1	20070503	US	2006-588313		20061027
US 7294621	B2	20071113				
US 20071058	11 A1	20070510	US	2006-588308		20061027
US 7294619	B2	20071113				
US 20071058	12 A1	20070510	US	2006-588311		20061027
US 7294620	B2	20071113				
PRIORITY APPLN.	INFO.:		US	1994-297416	Α	19940829
•		*	US	1994-314901	Α	19940929
			EP	1995-928365	A3	19950807
			JP	1996-508773	A3	19950807
			WO	1995-US10111	W	19950807
			US	1997-793470	A3	19970502
			US	1999-412539	B1	19991004
			US	2004-889127	A3	20040713
			US	2004-943923	A3	20040920

OTHER SOURCE(S):

MARPAT 125:49273

AB A method of treating viral infections, in particular with HIV-1, hepatitis B virus, and herpes viruses, is disclosed. The method comprising administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative For example, 1-dodecanamido-2-decylpropyl-3-phosphocholine showed IC50 value of 0.14 µM against HIV-1 syncytial plaque formation.

IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(phospholipids for treating viral infections and tumors)

RN 178172-98-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 178172-99-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 178173-00-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 178173-01-8 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:

1995:701769 CAPLUS

DOCUMENT NUMBER:

123:112632

TITLE:

Phospholipids for combating hepatitis B virus

infection

INVENTOR(S):

Kucera, Louis S.; Morris-Natschke, Susan L.

PATENT ASSIGNEE(S):

Wake Forest University, USA; University of North

Carolina

SOURCE:

PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAT	PATENT NO.					KIND DATE				APPLICATION NO.						DATE			
WO	WO 9428908				A2 19941222			WO 1994-US5855						19940525					
WO	WO 9428908				A3 19950323														
	W:	AT,	AU,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CZ,	DE,	DK,	ES,	FI,	GB,	GE,		
		HU,	JP,	KG,	KP,	KR,	KZ,	LK,	LU,	LV,	MD,	MG,	MN,	MW,	NL,	NO,	NZ,		
		PL,	PT,	RO,	RU,	SD,	SE,	SI,	SK,	TJ,	TT,	UA,	US,	UΖ,	VN				
	RW:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE,		
		BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	ML,	MR,	NE,	SN,	TD,	TG				
CA	2164	717			A1		1994	1222		CA 1	L994-	2164	717		1	9940	525		
AU	9470	448			Α		1995	0103		L UA	L994-	7044	8		1:	9940	525		
EP	7025	56			A1		1996	0327		EP 1	L994-	9192	31		1	9940	525		
EP	7025	56			В1		2002	1023											
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IE,	IT,	LI,	LU,	NL,	PT,	SE		
AT	2264	37			T		2002	1115		AT 1	L994-	9192	31		1:	9940	525		
PRIORITY	APP	LN.	INFO	. :						US 1	L993-	7494	3		A 1	9930	610		
										WO 1	L994-1	US58.	55	1	W 1	9940	525		
OWITED CO	STD CIT	101 -			MADE	ח א תו	122.	1100	2 2										

OTHER SOURCE(S): MARPAT 123:112632

AB A method of treating infection with hepatitis B virus is disclosed. The method comprises administration of alkyl ether phospholipids and derivs. of formula DCH2XCH2YR1 [Y = S, O, NH, NMe, NHCO, NMeCO; R1 = (un)branched (un)saturated C10-20 alk(en/yn)yl; X = bond, CH2 (un) substituted by OH, alkyl, alkoxy, or alkylthio; D = (PO4)-E, N+R5R6FW Z-; E = (mono/di/trialkyl)ammonioalkyl or a nucleic acid base conjugate; F = alkylene; R5, R6 = H, alkyl; W = OH, SH; Z- = anion]. Several compds. were prepared For example, etherification of isopropylideneglycerol with 1-bromododecane using KOH in PhMe and acid hydrolysis with HCl in MeOH-Et20 mixture gave 71% 3-dodecyloxy-1,2-propanediol. This underwent 1-O-tritylation with Ph3CCl in pyridine, 2-O-alkylation by 1-bromodecane and NaH in THF (51%), and detritylation by p-MeC6H4SO3H in CHCl3-MeOH (63%) to give 3-dodecyloxy-2-decyloxy-1-propanol. The latter underwent esterification with (PhO)2P(O)Cl (60%), hydrogenolysis of the Ph ester to the phosphatidic acid, and reesterification with AZT using DCC (22%) to give title compound (Na salt) I. Another compound, (\pm) -3-octadecanamido-2ethoxypropyl-1-phosphocholine, inhibited HBV virion DNA and intracellular RI HBV DNA in expts. to a comparable or greater extent than the standard agent ddC.

IT 112989-01-2P 112989-02-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of phospholipids for combating hepatitis B virus)

RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:

1995:694404 CAPLUS

DOCUMENT NUMBER:

123:160151

TITLE:

Membrane-interactive phospholipids inhibit HIV type 1-induced cell fusion and surface gp160/gp120 binding

to monoclonal antibody

AUTHOR (S):

Krugner-Higby, Lisa; Goff, David; Edwards, Terri;

Iyer, Nathan; Neufeld, Jay; Kute, Timothy;

Morris-Natschke, Susan; Ishaq, Khalid; Piantadosi,

Claude; Kucera, Louis S.

CORPORATE SOURCE:

Wake Forest University, Winsto-Salem, NC, 27157-1064,

USA

SOURCE:

AIDS Research and Human Retroviruses (1995), 11(6),

705-12

CODEN: ARHRE7; ISSN: 0889-2229

PUBLISHER:
DOCUMENT TYPE:

Liebert Journal

LANGUAGE:

English

Membrane-interactive phospholipids (PLs), previously evaluated for AΒ activity against HIV-1 in vitro, are known to affect late steps in viral replication. Studies were done to determine the effects of PL analogs on post-translational processing of HIV-1 proteins, binding of viral surface gp160/gp120 to CD4 receptor, and HIV-1-induced cell fusion. Results of this investigation indicated that PL alone (1-octadecanamido-2ethoxypropyl-rac-3-phosphocholine, CP-51) and PL-AZT conjugate (1-octadecanamido-2-ethoxypropyl-rac-3-phospho-3'-azido-3'-deoxythymidine, CP-92) have no effect on HIV-1-induced syntheses or processing of gp160/gp120, pr51, p24, or p17 (including myristoylation) in infected cells. Progeny HIV-1 particles made in CP-92-treated H9IIIB cells contained gp120, pr51, and p24; however, these virus particles had reduced capacity to bind to CD4+ cells. Both CP-51 and CP-92 inhibited syncytium (cell fusion) formation between treated HIV-1-infected cells and uninfected CD4+ cells, and, they reduced HIV-1 gp160/gp120 binding to CD4+ cells and monoclonal antibody. These results suggest that anti-HIV-1 activity of PL compds. involves alteration of cell surface membranes and viral envelopes. Phospholipid compds. are a novel class of membrane interactive compds. with potential use in blocking the spread of HIV-1 infection and pathogenesis in AIDS.

IT 112989-02-3, CP 51

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(membrane-interactive phospholipids inhibit HIV type 1-induced cell fusion and surface gp160/ gp120 binding to monoclonal antibody)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:185901 CAPLUS

DOCUMENT NUMBER: 114:185901

TITLE: Synthesis and evaluation of novel ether lipid

nucleoside conjugates for anti-HIV-1 activity

AUTHOR(S): Piantadosi, Claude; Marasco, Canio J., Jr.;

Morris-Natschke, Susan L.; Meyer, Karen L.; Gumus, Fatma; Surles, Jefferson R.; Ishaq, Khalid S.; Kucera,

Louis S.; Iyer, Nathan; et al.

CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC,

27599, USA

SOURCE: Journal of Medicinal Chemistry (1991), 34(4), 1408-14

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 114:185901

GI

Combinations of an amidoalkylphosphocholine, C17H35CONHCH2CH(OEt)CH2OP(O)(O-)OCH2CH2N+Me3, and AZT were found to cause an apparent synergistic action in suppressing infectious HIV-1 replication. In addition, alkylamido, alkyloxy, and alkylthio ether lipids were chemical linked to anti-HIV-1 nucleosides (AZT and DDI) through phosphate and phosphonate linkages. These conjugates show promising in vitro anti-HIV-1 activity. Also, the conjugates have a 5-10-fold reduction in cell cytotoxicity compared to AZT alone. The most active compound, an alkylamido ether lipid-AZT conjugate, I was found to have a differential selectivity of 1793 in a syncytial plaque assay. In comparison, AZT alone has a value of 1281.

IT 112989-02-3

RL: RCT (Reactant); RACT (Reactant or reagent)
 (anti-HIV-1 activity of)

Ι

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

CAPLUS COPYRIGHT 2008 ACS on STN ANSWER 10 OF 22

ACCESSION NUMBER: 1991:185881 CAPLUS

DOCUMENT NUMBER: 114:185881

In vitro evaluation of phosphocholine and quaternary TITLE:

ammonium containing lipids as novel anti-HIV agents

Meyer, Karen L.; Marasco, Canino J., Jr.; AUTHOR (S):

Morris-Natschke, Susan L.; Ishaq, Khalid S.;

Piantadosi, Claude; Kucera, Louis S.

CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC,

27599, USA

Ι

Journal of Medicinal Chemistry (1991), 34(4), 1377-83 SOURCE:

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal English LANGUAGE:

CASREACT 114:185881 OTHER SOURCE(S):

GI

$$\begin{array}{c} \text{ NHCO (CH}_2) \text{ nMe} \\ \\ \text{O} \\ \text{O} \\ \text{O} \\ \text{O} \\ \text{POCH}_2\text{CH}_2\text{N} \\ \text{^+Me}_3 \\ \\ \text{O} \\ \text{^-} \end{array}$$

.A series of synthetic lipids containing a two- or three-carbon backbone AΒ substituted with a thio, oxy, or amidoalkyl functionality and either a phosphocholine or quaternary ammonium moiety were evaluated as potential anti-HIV-1 agents. Several analogs were identified as possessing activity with the most promising compound being rac-3-octadecanamido-2ethoxypropylphosphocholine (I). I exhibited an IC50 for the inhibition of plaque formation of 0.16 μM which was 84-fold lower than the IC50 value determined for CEM-SS cell growth inhibition. Initial mechanistic studies have indicated that these compds., unlike AZT, are not reverse transcriptase (RT) inhibitors, but instead appear to inhibit a late step in HIV replication involving virus assembly and infectious virus production Since these lipids are acting via a different, mechanism they represent an alternative approach to the chemotherapeutic treatment of AIDS as well as candidates for combination therapy with AZT. IT 88876-07-7 112989-00-1 112989-01-2

112989-02-3

RL: RCT (Reactant); RACT (Reactant or reagent) (anti-HIV-1 activity of)

RN88876-07-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 4-hydroxy-7-methoxy-N,N,Ntrimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)

RN 112989-00-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium, 4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,Ntrimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

IT 149576-20-5P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and anti-HIV-1 activity of)

RN 149576-20-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:

1990:470710 CAPLUS

DOCUMENT NUMBER:

113:70710

TITLE: Novel membrane-interactive ether lipid analogs that

inhibit infectious HIV-1 production and induce

defective virus formation

AUTHOR(S): Kucera, Louis S.; Iyer, Nathan; Leake, Eva; Raben,

Adam; Modest, Edward J.; Daniel, Larry W.; Piantadosi,

Claude

CORPORATE SOURCE: Bowman Gray Sch. Med., Wake Forest Univ.,

Winston-Salem, NC, 27103, USA

SOURCE: AIDS Research and Human Retroviruses (1990), 6(4),

491-501

CODEN: ARHRE7; ISSN: 0889-2229

DOCUMENT TYPE: Journal LANGUAGE: English

A new class of membrane-active ether lipid (EL) analogs of AΒ platelet-activating factor were studied for in vitro anti-HIV-1 activity. Human T-cell (CEM-ss) monolayers or suspension cultures were used to determine effects of structural modifications of Type A phosphorus-containing and Type B nonphosphorus EL analogs on (a) the inhibitory concn.50 (IC50) for HIV-1 syncytial plaque formation and cell growth, and, (b) virus budding at the cell plasma membrane. Results indicate that representative Type A and Type B EL inhibit HIV-1 but not herpes simplex virus type 2 plaque formation when added before or up to 2 days after viral infection. Anti-HIV-1 activity does not involve direct inactivation of virus infectivity. Type A EL (IC50 range = $0.2\text{-}1.4~\mu\text{M}$) with alkoxy, alkylthio, or alkyamido substitution at glycerol position 1 and ethoxy or methoxy substitution at position 2, and Type B compds. (IC50 range = $0.33-0.63 \mu M$) with an inverse choline or nitrogen heterocyclic substitution at position 3 have selective activity against HIV-1-infected T-cells. EL treatment of HIV-1-infected cells is associated with subsequent release of reverse transcriptase activity, but infectious virus production is inhibited with time after infection. Electron microscopic examination of HIV-1-infected and EL-treated cells revealed absence of detectable budding virus at the plasma membrane but presence of intracytoplasmic vacuolar virus particles. EL analogs are a novel class of agents that induce defective intracytoplasmic vacuolar HIV-1 formation in T-cells. Being membrane interactive, EL are ideally suited for combination chemotherapy with DNA-interactive anti-HIV

IT 112989-02-3

RL: BIOL (Biological study)

(human immunodeficiency virus infection response to)

RN 112989-02-3 CAPLUS

nucleoside analogs.

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 22 USPATFULL on STN

ACCESSION NUMBER: 2007:121606 USPATFULL

TITLE: Lipid analogs for inhibiting HIV-1 activity INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STAT

Kucera, Louis S., Pfafftown, NC, UNITED STATES Morris-Natschke, Susan L., Apex, NC, UNITED STATES

Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES

PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 2007105812 A1 20070510

US 7294620 B2 20071113

APPLICATION INFO.: US 2006-588311 A1 20061027 (11)

RELATED APPLN. INFO.: Division of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No.

US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of

Ser. No. US 1994-297416, filed on 29 Aug 1994,

ABANDONED

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE

NW, WASHINGTON, DC, 20004, US

NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1-106

LINE COUNT: 898

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of treating viral infections, and in

particular hepatitis B virus. The method comprises

administering to a subject in need of such treatment an

infection-controlling amount of a phospholipid or phospholipid

derivative to inhibit the activity of the viral infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX
NAME)

RN 178173-01-8 USPATFULL

L4 ANSWER 13 OF 22 USPATFULL on STN

ACCESSION NUMBER: 2007:121605 USPATFULL

TITLE: Lipid analogs for inhibiting the activity of hepatitis

B antigen

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES

Morris-Natschke, Susan L., Apex, NC, UNITED STATES Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES

PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)

University of North Carolina at Chapel Hill (U.S.

corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2007105811	A1	20070510	
	US 7294619	B2	20071113	
APPLICATION INFO.:	US 2006-588308	A1	20061027	(11)
RELATED APPLN. INFO.:	Division of Ser.	No. US	2004-8891	.27, filed on 13 Jul
	2004, GRANTED, P	at. No.	US 713558	4 Division of Ser. No.
				99, GRANTED, Pat. No.
	US 7129227 Divis	ion of S	Ser. No. U	S 1997-793470, filed
	on 2 May 1997, G	RANTED,	Pat. No.	US 5962437
	Continuation of	Ser. No.	. US 1994-	314901, filed on 29
				in-part of Ser. No. US
	1994-297416, fil	ed on 29	9 Aug 1994	, ABANDONED
DOCUMENT TYPE:	Utility		_	

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE

NW, WASHINGTON, DC, 20004, US

NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1-106
LINE COUNT: 899

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

RN 178172-98-0 USPATFULL

RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 178173-01-8 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 22 USPATFULL on STN

ACCESSION NUMBER:

2007:114796 USPATFULL

TITLE:

Lipid analogs for combating tumors

INVENTOR(S):

Kucera, Louis S., Pfafftown, NC, UNITED STATES Morris-Natschke, Susan L., Apex, NC, UNITED STATES Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES

PATENT ASSIGNEE(S):

Wake Forest University (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2007099870	A1	20070503	
	US 7294621			
APPLICATION INFO.:	US 2006-588313	A1	20061027	(11)
RELATED APPLN. INFO.:	Division of Ser.	No. US	2004-9439	23, filed on 20 Sep
	2004, GRANTED, Pa	at. No.	US 714155	7 Continuation of Ser.
	No. US 1999-4125	39, file	ed on 4 Oc	t 1999, GRANTED, Pat.
	No. US 7129227 D	ivision	of Ser. N	o. US 1997-793470,
	filed on 2 May 1:	997, GR	ANTED, Pat	. No. US 5962437
	Continuation of	Ser. No	. US 1994-	314901, filed on 29
	Sep 1994, ABANDO	NED Cont	tinuation-	in-part of Ser. No. US
	1994-297416, file	ed on 25	9 Aug 1994	, ABANDONED

DOCUMENT TYPE:

FILE SEGMENT:

APPLICATION

Utility

LEGAL REPRESENTATIVE:

MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE

NW, WASHINGTON, DC, 20004, US

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

19 1-106

LINE COUNT:

900

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

RN 178172-98-0 USPATFULL

RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 178173-01-8 USPATFULL

L4 ANSWER 15 OF 22 USPATFULL on STN

ACCESSION NUMBER:

2006:284487 USPATFULL

TITLE:

INVENTOR(S):

Lipid analogs for treating viral infections

Kucera, Louis S., Pfafftown, NC, UNITED STATES
Morris-Natschke, Susan L., Apex, NC, UNITED STATES

Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES

PATENT ASSIGNEE(S):

Wake Forest University, Winston Salem, NC, UNITED

STATES (U.S. corporation)

University of North Carolina at Chapel Hill, Chapel

Hill, NC, UNITED STATES (U.S. corporation)

NUMBER	KIND	DATE

PATENT INFORMATION:

US 7129227

20061031

APPLICATION INFO.:

US 1999-412539

19991004 (9)

RELATED APPLN. INFO.:

Division of Ser. No. US 2003-793470, Pat. No. US

5962437 A 371 of International Ser. No. WO

1995-US10111, filed on 7 Aug 1995 Continuation of Ser.

No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed

on 29 Aug 1994, ABANDONED

DOCUMENT TYPE:

Utility

FILE SEGMENT:

GRANTED

PRIMARY EXAMINER:

Coleman, Brenda

LEGAL REPRESENTATIVE:

Morgan Lewis & Bockius LLP

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

24 1

LINE COUNT:

1259

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB

A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpesviruses, is disclosed. The method comprises administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

RN178172-98-0 USPATFULL

3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-CN hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

178172-99-1 USPATFULL RN

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 178173-00-7 USPATFULL

3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-CN hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 178173-01-8 USPATFULL

L4 ANSWER 16 OF 22 USPATFULL on STN

ACCESSION NUMBER: 2005:215516 USPATFULL

TITLE: \ Phospholipids for the treatment of infection by

togaviruses, herpes viruses and coronaviruses

Fleming, Ronald A., Cary, NC, UNITED STATES
Hes, Jan V., Hurdle Mills, NC, UNITED STATES

Huang, Yunsheng, Apex, NC, UNITED STATES
Read, Russ H., Rural Hall, NC, UNITED STATES

Morris-Natschke, Susan L., Apex, NC, UNITED STATES Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES Kucera, Louis S., Pfaffown, NC, UNITED STATES Furman, Phillip A., Durham, NC, UNITED STATES

PATENT ASSIGNEE(S): Kucera Pharmaceutical Company (U.S. corporation)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Madeline I. Johnston, Esq., KING & SPALDING LLP, 45th

Floor, 191 Peachtree Street, N.E., Atlanta, GA, 30303,

US

NUMBER OF CLAIMS: 65 EXEMPLARY CLAIM: 1

INVENTOR (S):

NUMBER OF DRAWINGS: 2 Drawing Page(s)

LINE COUNT: 2757

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Provided are compounds, methods and pharmaceutical compositions for treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid compound is, e.g., a 3-alkylamido-2-

alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other anti-viral agents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 252371-27-0 443882-90-4 443882-91-5

(phospholipids for treatment of infection by togaviruses, herpes viruses and coronaviruses)

RN 252371-27-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 443882-90-4 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA_INDEX_NAME)

RN 443882-91-5 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

L4 ANSWER 17 OF 22 USPATFULL on STN

ACCESSION NUMBER:

2005:215515 USPATFULL

TITLE:

Methods and compositions for the treatment of

respiratory syncytial virus

INVENTOR(S):

Kucera, Louis S., Pfafftown, NC, UNITED STATES
Morris-Natschke, Susan L., Apex, NC, UNITED STATES
Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES
Fleming, Ronald A., Cary, NC, UNITED STATES
Hess, Jan V., Hurdle Mills, NC, UNITED STATES
Huang, Yunsheng, Apex, NC, UNITED STATES

Huang, Yunsheng, Apex, NC, UNITED STATES
Read, Russ H., Rural Hall, NC, UNITED STATES
Furman, Phillip A., Durham, NC, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2005187191	A1	20050825	
APPLICATION INFO.:	US 2004-781894	A1	20040220	(10)
DOCUMENT TYPE:	Utility			

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE:

MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE

NW, WASHINGTON, DC, 20004, US

NUMBER OF CLAIMS:

39 1

EXEMPLARY CLAIM: NUMBER OF DRAWINGS:

1 Drawing Page(s)

LINE COUNT:

2105

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention includes compounds useful for inhibiting RSV replication and treating a host infected with RSV. The invention also includes methods of treating a host infected with RSV by administering to the host an anti-RSV effective amount of a compound of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 443882-90-4, KPC 11 443882-91-5, KPC 15

(compns. for treatment of respiratory syncytial virus)

RN 443882-90-4 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 443882-91-5 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

IT 207298-91-7 207298-93-9 252371-27-0

443882-96-0

(compns. for treatment of respiratory syncytial virus)

RN 207298-91-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 207298-93-9 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 252371-27-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 443882-96-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

L4 ANSWER 18 OF 22 USPATFULL on STN

ACCESSION NUMBER: 2005:93372 USPATFULL

TITLE: Lipid analogs for treating viral infections

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES

Morris-Natschke, Susan L., Apex, NC, UNITED STATES Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES

PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, UNITED

STATES (U.S. corporation)

University of North Carolina at Chapel Hill, Chapel

Hill, NC, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2005080050	A1	20050414	
	US 7141557	B2	20061128	
APPLICATION INFO.:	US 2004-943923	A1	20040920	(10)
RELATED APPLN. INFO.:	Continuation of	Ser. No	. US 1999-	412539, filed on 4 Oct
	1999, PENDING Di	vision (of Ser. No). US 1997-793470,
	filed on 2 May 1	997, GR	ANTED, Pat	. No. US 5962437 A 371
	of International	Ser. No	o. WO 1995	-US10111, filed on 7
	Aug 1995			
DOCUMENT TUDE.	TTE 2 7 2 E			

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE

NW, WASHINGTON, DC, 20004, US

NUMBER OF CLAIMS: 34
EXEMPLARY CLAIM: 1-106
LINE COUNT: 960

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpes virus, is disclosed.

The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 178173-01-8 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

ANSWER 19 OF 22 USPATFULL on STN L4

ACCESSION NUMBER:

2004:328020 USPATFULL

TITLE:

Lipid analogs for treating viral infections Kucera, Louis S., Pfafftown, NC, UNITED STATES

INVENTOR(S):

Morris-Natschke, Susan L., Apex, NC, UNITED STATES Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES

PATENT ASSIGNEE(S):

Wake Forest University, Winston-Salem, NC (U.S.

corporation)

University of North Carolina at Chapel Hill, Chapel

Hill, NC (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004259845	A1	20041223	
	US 7135584	B2	20061114	
APPLICATION INFO::	US 2004-889127	A1	20040713	(10)
DELAMED ADDING THEC.	Continuation of	Cox No	TTC 1000.	412529

RELATED APPLN. INFO.:

Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, ABANDONED Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7

Aug 1995, PENDING

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE:

MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE

NW, WASHINGTON, DC, 20004

NUMBER OF CLAIMS:

19

EXEMPLARY CLAIM:

CLM-1-106

LINE COUNT:

903

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A method of treating viral infections, and in particular HIV-1, AB

hepatitis B virus, and herpes virus, is disclosed. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or

phospholipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI). (CA INDEX NAME)

RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 178173-00-7 USPATFULL

RN 178173-01-8 USPATFULL

L4 ANSWER 20 OF 22 USPATFULL on STN

ACCESSION NUMBER:

2000:24634 USPATFULL

TITLE:

Method of treating hepatitis virus infections

INVENTOR(S):

Morris-Natschke, Susan L., Apex, NC, United States

Kucera, Louis S., Pfafftown, NC, United States

PATENT ASSIGNEE(S):

Wake Forest University, Winston-Salem, NC, United

States (U.S. corporation)

University of North Carolina at Chapel Hill, Chapel Hill, NC, United States (U.S. corporation)

RELATED APPLN. INFO.: Division of Ser. No. US 1995-465947, filed on 6 Jun 1995, now patented, Pat. No. US 5770584 which is a continuation-in-part of Ser. No. US 1993-74943, filed

on 10 Jun 1993, now abandoned

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Wilson, James O.

LEGAL REPRESENTATIVE: Akin, Gump, Strauss, Hauer & Feld, L.L.P.

NUMBER OF CLAIMS: 44 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)

LINE COUNT: 1631

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of treating hepatitis virus infection is disclosed.

The method comprising administering to a human subject in need of such

treatment an effective hepatitis virus-combatting amount of an

alkyl lipid or alkyl lipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 112989-01-2P 112989-02-3P

(preparation of phospholipids for combating hepatitis B virus)

RN 112989-01-2 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 112989-02-3 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

L4 ANSWER 21 OF 22 USPATFULL on STN

ACCESSION NUMBER: 1999:121339 USPATFULL

TITLE: Lipid analogs for treating viral infections

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, United States

Morris-Natschke, Susan L., Apex, NC, United States Ishaq, Khalid S., Chapel Hill, NC, United States

PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, United

States (U.S. corporation)

NUMBER KIND DATE

US 5962437 PATENT INFORMATION: 19991005

WO 9606620 19960307

US 1997-793470 APPLICATION INFO.: 19970502 (8)

WO 1995-US10111 19950807

> 19970502 PCT 371 date 19970502 PCT 102(e) date

Continuation of Ser. No. US 1994-314901, filed on 29 RELATED APPLN. INFO.:

Sep 1994, now abandoned which is a continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, now

abandoned

Utility DOCUMENT TYPE: Granted FILE SEGMENT:

Raymond, Richard L. PRIMARY EXAMINER:

Coleman, Brenda ASSISTANT EXAMINER:

Schwegman, Lundberg, Woessner & Kluth, P.A. LEGAL REPRESENTATIVE:

NUMBER OF CLAIMS: 33 EXEMPLARY CLAIM: 1 1159 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A method of treating viral infections, and in particular HIV-1, AB hepatitis B virus and herpes viruses, is disclosed. The method comprising administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

178172-98-0 USPATFULL RN

3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-CN hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

178172-99-1 USPATFULL RN

3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-CN [3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 178173-00-7 USPATFULL

3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-CN hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX

RN 178173-01-8 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

L4 ANSWER 22 OF 22 USPATFULL on STN

ACCESSION NUMBER: 1998:72609 USPATFULL

TITLE: Method of treating hepatitis virus infections
INVENTOR(S): Kucera, Louis S., Pfafftown, NC, United States
Morris-Natschke, Susan L., Apex, NC, United States

PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, United

States (U.S. corporation)

University of North Carolina, Chapel Hill, NC, United

States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5770584		19980623	

APPLICATION INFO.: US 1995-465947 19950606 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-74943, filed

on 10 Jun 1993, now abandoned

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Wilson, James O.

LEGAL REPRESENTATIVE: Schwegman, Lundberg, Woessner & Kluth, P.A.

NUMBER OF CLAIMS: 1 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)

LINE COUNT: 1527

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of treating hepatitis virus infection is disclosed.

The method comprising administering to a human subject in need of such treatment an effective hepatitis virus-combatting amount of an alkyl lipid or alkyl lipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 112989-01-2P 112989-02-3P 209532-02-5P

209532-03-6P

(alkyl lipids for treating hepatitis virus infections)

RN 112989-01-2 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 112989-02-3 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

RN 209532-02-5 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)- (9CI) (CA INDEX NAME)

Rotation (+).

RN 209532-03-6 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)- (9CI) (CA INDEX NAME)

Rotation (+).

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(FILE 'HOME' ENTERED AT 14:40:35 ON 09 JAN 2008)

FILE 'REGISTRY' ENTERED AT 14:40:51 ON 09 JAN 2008

L1 STRUCTURE UPLOADED

L2 70 S L1 FULL

FILE 'MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 14:41:28 ON 09 JAN 2008

L3 48 S L2

L4 22 S L3 AND VIRUS

L5 2 S L4 AND RSV

---Logging off of STN---

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FULL ESTIMATED COST	152.42	330.99
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-8.80	-8.80

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